

### SECTION 1: Identification of Product and Company

#### 1.1. Product identifier

Trade name : EZY-OPEN™ LIQUID  
Product code : J989

#### 1.2. Company identification

##### Manufacturer

Whitmore Manufacturing LLC  
930 Whitmore Drive 75087 Rockwall, Texas USA  
T 1.972.771.1000  
[Regulatory@whitmores.com](mailto:Regulatory@whitmores.com) - [www.jetlube.com](http://www.jetlube.com)

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week  
Within USA and Canada: 1.800.424.9300  
Outside USA and Canada: +1.703.527.3887  
(collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to GHS BR (ABNT NBR 14725)

Flammable liquids, Category 4  
Skin corrosion/irritation, Category 2  
Serious eye damage/eye irritation, Category 2  
Hazardous to the aquatic environment – Acute Hazard, Category 3  
Hazardous to the aquatic environment – Chronic Hazard, Category 3

#### 2.2. Label elements

##### GHS BR labelling

Hazard pictograms (GHS BR)



Signal word (GHS BR)

: Warning

Hazard statements (GHS BR)

: H227 - Combustible liquid  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H412 - Harmful to aquatic life with long lasting effects.  
: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P370+P378 - In case of fire: Use media other than water to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Precautionary statements (GHS BR)

#### 2.3. Other hazards not contributing to the classification

No additional information available

# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%
2-methylpentane-2,4-diol	CAS-No.: 107-41-5	20 – 40
distillates, hydrotreated light	CAS-No.: 64742-47-8	10 – 20
N-methyl-2-pyrrolidone	CAS-No.: 872-50-4	5 – 10

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

No additional information available

#### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

No additional information available

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

No additional information available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

No additional information available

#### 6.3. Methods and material for containment and cleaning up

No additional information available

# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

No additional information available

#### 7.2. Conditions for safe storage, including any incompatibilities

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### N-methyl-2-pyrrolidone (872-50-4)

##### Brazil - Biological limit values

Local name	N-metil-2-pirrolidona
BLV	100 mg/l Parâmetro: 5-hidroxi-n-metil-2-pirrolidona - Meio: Urina - Momento de amostragem: Final de jornada de trabalho - Interpretação: IBE/EE - Indicadores Biológicos de Exposição Excessiva.
Regulatory reference	NR 7 - PCMSO

#### 8.2. Exposure controls

No additional information available

#### 8.3. Personal protective equipment

##### Hand protection:

Neoprene or nitrile rubber gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	2 (> 30 minutes)	0.3 mm - 0.6 mm		

##### Eye protection:

Wear eye protection

##### Skin and body protection:

Wear suitable protective clothing

##### Respiratory protection:

No respiratory protection needed under normal use conditions

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: amber
Odour	: Mild odor
Odour threshold	: Not available
pH	: Not available
Melting point	: Not available
Freezing point	: -23 °C
Boiling point	: Not available
Flash point	: 82 °C
Relative evaporation rate (butylacetate=1)	: Not available

# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

Flammability	: Not available
Explosive limits	: Not available
Vapour pressure	: Not available
Relative vapour density at 20 °C	: Not available
Relative density	: Not available
Solubility	: Slightly soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity, kinematic	: > 21.5 cSt @ 40°C
Viscosity, dynamic	: Not available

### 9.2. Other information

Not available

## SECTION 10: Stability and reactivity

Chemical stability	: No additional information available
Conditions to avoid	: No additional information available
Hazardous decomposition products	: No additional information available
Incompatible materials	: No additional information available
Possibility of hazardous reactions	: No additional information available
Reactivity	: No additional information available
Handling temperature	: No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not available
Acute toxicity (dermal)	: Not available
Acute toxicity (inhalation)	: Not available

distillates, hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.28 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 0,42 -
ATE BR (dermal)	2500 mg/kg bodyweight
2-methylpentane-2,4-diol (107-41-5)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral, 15 day(s))
LD50 oral	3680 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 15 day(s))
LC50 Inhalation - Rat	> 55 mg/l (Equivalent or similar to OECD 403, 8 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))
ATE BR (oral)	3680 mg/kg bodyweight
ATE BR (dermal)	2500 mg/kg bodyweight
N-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	4150 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 3100 - 5560
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.1 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 5.1 mg/l Source: ECHA
ATE BR (oral)	4150 mg/kg bodyweight

# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

Skin corrosion/irritation : Causes skin irritation.

N-methyl-2-pyrrolidone (872-50-4)	
pH	8 – 10 (10 %)

Serious eye damage/irritation : Causes serious eye irritation.

N-methyl-2-pyrrolidone (872-50-4)	
pH	8 – 10 (10 %)

Respiratory or skin sensitisation : Not available

Germ cell mutagenicity : Not available

Carcinogenicity : Not available

N-methyl-2-pyrrolidone (872-50-4)	
NOAEL (chronic, oral, animal/male, 2 years)	≈ 89 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	≈ 221 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information)

distillates, hydrotreated light (64742-47-8)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg bodyweight Animal: rat, Animal sex: male

2-methylpentane-2,4-diol (107-41-5)	
LOAEL (animal/male, F0/P)	500 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other:Commission Regulation (EC) No. 440/2008, Part B.3, 30 May 2008
NOAEL (animal/male, F0/P)	200 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other:Commission Regulation (EC) No. 440/2008, Part B.3, 30 May 2008
NOAEL (animal/female, F0/P)	≥ 1000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other:Commission Regulation (EC) No. 440/2008, Part B.3, 30 May 2008

Reproductive toxicity : Not available

STOT-single exposure : Not available

N-methyl-2-pyrrolidone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not available

distillates, hydrotreated light (64742-47-8)	
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight Animal: rat, Animal sex: female
NOAEC (inhalation, rat, vapour, 90 days)	≥ 0.024 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

2-methylpentane-2,4-diol (107-41-5)	
NOAEL (oral, rat, 90 days)	450 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

N-methyl-2-pyrrolidone (872-50-4)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	1 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (dermal, rat/rabbit, 90 days)	826 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.5 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : Not classified.

EZY-OPEN™ LIQUID	
Viscosity, kinematic	> 21.5 mm²/s @ 40°C

# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

distillates, hydrotreated light (64742-47-8)	
Animal studies and expert judgment for classification	False
Viscosity, kinematic	1.97 mm <sup>2</sup> /s (25 °C)
2-methylpentane-2,4-diol (107-41-5)	
Animal studies and expert judgment for classification	False
Viscosity, kinematic	Not determined
N-methyl-2-pyrrolidone (872-50-4)	
Animal studies and expert judgment for classification	False
Viscosity, kinematic	1.7 mm <sup>2</sup> /s (25 °C)

### 11.2. Most important symptoms and effects, both acute and delayed

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Harmful to aquatic life.  
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

distillates, hydrotreated light (64742-47-8)	
LC50 - Fish [1]	2.2 mg/l
EC50 - Crustacea [1]	> 100 mg/l (Invertebrata)
2-methylpentane-2,4-diol (107-41-5)	
LC50 - Fish [1]	9450 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	5410 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 429 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	> 429 mg/l Source: EHCA
N-methyl-2-pyrrolidone (872-50-4)	
LC50 - Fish [1]	> 500 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	1107 mg/l (EPA 660/3 - 75/009, 96 h, Palaemonetes vulgaris, Static system, Salt water, Experimental value)
EC50 - Crustacea [2]	> 1000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	600.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	> 500 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	12.5 mg/l

### 12.2. Persistence and degradability

distillates, hydrotreated light (64742-47-8)	
Not rapidly degradable	
Persistence and degradability	Readily biodegradable in water.

# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

2-methylpentane-2,4-diol (107-41-5)	
Not rapidly degradable	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.02 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.2 g O <sub>2</sub> /g substance
ThOD	2.3 g O <sub>2</sub> /g substance

N-methyl-2-pyrrolidone (872-50-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.07 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.56 g O <sub>2</sub> /g substance
ThOD	1.9 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.56

### 12.3. Bioaccumulative potential

distillates, hydrotreated light (64742-47-8)	
Partition coefficient n-octanol/water (Log Pow)	6 – 8.2
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

2-methylpentane-2,4-diol (107-41-5)	
Partition coefficient n-octanol/water (Log Pow)	0.58 (QSAR, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

N-methyl-2-pyrrolidone (872-50-4)	
BCF - Other aquatic organisms [1]	3 (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: ECHA
Bioaccumulative potential	Not bioaccumulative.

### 12.4. Mobility in soil

distillates, hydrotreated light (64742-47-8)	
Surface tension	0.026 N/m (20 °C)
Ecology - soil	Adsorbs into the soil.

2-methylpentane-2,4-diol (107-41-5)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

N-methyl-2-pyrrolidone (872-50-4)	
Surface tension	0.407 N/m
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

### 12.5. Other adverse effects

Hazardous to the ozone layer : Not available

## SECTION 13: Disposal considerations

No additional information available


# EZY-OPEN™ LIQUID

## Safety Data Sheet

According to ABNT NBR 14725-4

### SECTION 14: Transport information

#### National and international Regulations

RES 5232	IMDG	IATA
<b>UN number</b>		
1993	Not applicable	Not applicable
<b>UN Proper Shipping Name</b>		
LÍQUIDO INFLAMÁVEL, N.E. (MIXTURE)	Not applicable	Not applicable
<b>Transport hazard class(es)</b>		
3	Not applicable	Not applicable
<b>Danger labels</b>		
3	Not applicable	Not applicable
	Not applicable	Not applicable
<b>Subsidiary risk</b>		
Not applicable	Not applicable	Not applicable
<b>Risk Number</b>		
30		
<b>Packing group</b>		
III	Not applicable	Not applicable
<b>Special provisions</b>		
223,274	Not applicable	Not applicable
<b>Dangerous for the environment</b>		
No	No	No

#### 14.2 Other information

No additional information available

### SECTION 15: Regulatory information

#### 15.1. National regulations

No additional information available

### SECTION 16: Other information

No additional information available

Safety Data Sheet (SDS), Brazil

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.